

WHAT IS CLAIMED IS:

1. A method of preparing a polishing pad suitable for
chemical mechanical polishing of a semiconductor wafer,
comprising:
providing a polishing pad having an hygroscopic absorbency;
soaking the polishing pad with an aqueous medium for a time
sufficient to equilibrate the pad to prior to polishing with the
pad; and
placing the polishing pad on a polishing platen subsequent
to the soaking.

2. The method as recited in Claim 1 wherein soaking
includes soaking at about 10°C to 45°C and ambient pressure.

3. The method as recited in Claim 1 wherein soaking
includes soaking at ambient temperature and pressure.

4. The method as recited in Claim 1 wherein soaking
includes soaking in aqueous media for a time sufficient to
equilibrate the pad to at least about 10% to about 50% or more of
the pad's maximum absorbency.

4.

The method as recited in Claim 1 wherein the pad
comprises a polymer selected from the group consisting of:

6,6 nylon;

6,12 nylon;

polyketone; and

polyurethane.

5.

The method as recited in Claim 1 wherein the soaking is
performed for a time ranging from about 3 hours to about 2 weeks.

6.

The method as recited in Claim 1 wherein the soaking is
performed for a time ranging from about 3 hours to about 48
hours.

7.

The method as recited in Claim 1 wherein the soaking is
performed for a time ranging from about 15 hours to about 30
hours.

8.

The method as recited in Claim 1 wherein the aqueous
media includes an additive.

9.

The method as recited in Claim 8 wherein the additive
comprises a buffer.

10. The method as recited in Claim 9 wherein the buffer is
an acidic buffer having a pH ranging from about 2.0 to about 7.0.

11. The method as recited in Claim 9 wherein the buffer is
a basic buffer having a pH ranging from about 7.0 to about 14.0.

12. The method as recited in Claim 8 wherein the additive
is selected from the group consisting of an oxidant, an abrasive,
and an organic amine.

13. The method as recited in Claim 12 wherein the organic
amine is ethanol amine.

14. The method as recited in Claim 12 wherein the abrasive
is selected from the group consisting of alumina and silica.

16
15. A method of packaging a polishing pad for use in
2 polishing a semiconductor wafer, comprising:
3 placing a polishing pad in a container configured to retain
4 an aqueous medium therein;
5 placing an aqueous medium in the container in a quantity
6 sufficient to allow the polishing pad to equilibrate; and
7 sealing the container.

17
16. The method as recited in Claim 15 wherein said placing
2 includes maintaining the aqueous media at about 10°C to 45°C and
3 ambient pressure.

18
17. The method as recited in Claim 15 wherein said placing
2 includes maintaining the aqueous media at ambient temperature and
3 pressure.

19
18. The method as recited in Claim 15 wherein said placing
2 includes maintaining the aqueous media for a time sufficient to
3 equilibrate the pad to at least about 10% to about 50% or more of
4 the pad's maximum absorbency.

20
19. The method as recited in Claim 15 wherein the pad
2 comprises a polymer selected from the group consisting of:

3 6,6 nylon;
4 6,12 nylon;
5 polyketone; and
6 polyurethane.

20. The method as recited in Claim 15 wherein the aqueous
2 medium includes an additive.

21. The method as recited in Claim 20 wherein the additive
2 comprises a buffer.

22. The method as recited in Claim 21 wherein the buffer is
2 an acidic buffer having a pH ranging from about 2.0 to about 7.0.

23. The method as recited in Claim 21 wherein the buffer is
2 a basic buffer having a pH ranging from about 7.0 to about 14.0.

24. The method as recited in Claim 20 wherein the additive
2 is selected from the group consisting of an oxidant, an abrasive,
3 and an organic amine.

25. The method as recited in Claim 24 wherein the organic
2 amine is ethanol amine.

26. The method as recited in Claim 24 wherein the abrasive

2 is selected from the group consisting of alumina and silica.

27. A packaged polishing pad, comprising:

a sealable moisture tight package having a dimension
sufficient to contain a polishing pad therein; and

a polishing pad soaked in an aqueous medium and located
within the sealable moisture tight package.

28. The packaged polishing pad as recited in Claim 27

wherein the aqueous media is maintained at about 10°C to 45°C and
ambient pressure.

29. The packaged polishing pad as recited in Claim 27
wherein the aqueous media is maintained at ambient temperature
and pressure.

30. The packaged polishing pad as recited in Claim 27
wherein the aqueous media is maintained for a time sufficient to
equilibrate the pad to at least about 10% to about 50% or more of
the pad's maximum absorbency.

31. The packaged polishing pad as recited in Claim 27
wherein the pad comprises a polymer selected from the group
consisting of:

6,6 nylon;

5 6,12 nylon;
6 polyketone; and
7 polyurethane.

32. The packaged polishing pad as recited in Claim 27
2 wherein the aqueous medium includes an additive.

32. The packaged polishing pad as recited in Claim 32
2 wherein the additive comprises a buffer.

33. The packaged polishing pad as recited in Claim 33
2 wherein the buffer is an acidic buffer having a pH ranging from
3 about 2.0 to about 7.0.

34. The packaged polishing pad as recited in Claim 33
2 wherein the buffer is a basic buffer having a pH ranging from
3 about 7.0 to about 14.0.

35. The packaged polishing pad as recited in Claim 32
2 wherein the additive is selected from the group consisting of an
3 oxidant, an abrasive, and an organic amine.

8
36

The packaged polishing pad as recited in Claim 32
wherein the organic amine is ethanol amine.

9
37

The packaged polishing pad as recited in Claim 35
wherein the abrasive is selected from the group consisting of
alumina and silica.

40
38

The packaged polishing pad as recited in Claim 27
wherein the sealable moisture tight package is comprised of a
flexible plastic material.

41
39

The packaged polishing pad as recited in Claim 38
wherein the flexible plastic material is a heat sealable
material.

42
40

The packaged polishing pad as recited in Claim 38
wherein the flexible plastic material is mechanically sealable.

43
41

The packaged polishing pad as recited in Claim 27
wherein the pad is pre-soaked subsequent to location in the
package.

42. The packaged polishing pad as recited in Claim 41

2 wherein the pad is pre-soaked for a period of time ranging from
3 about 3 hours to about 2 weeks.

43. The packaged polishing pad as recited in Claim 41

2 wherein the pad is pre-soaked for a period of time ranging from
about 15 hours to about 30 hours.

RECEIVED